



**NEW ENGLAND  
COMMON ASSESSMENT PROGRAM**

**Practice Test Resource Material**

**Grade 4**

**Mathematics**

# New England Common Assessment Program

## Grade 4 Mathematics Practice Test Item Documentation

Session 1 – Non-Calculator					
Position #	Item Type	Correct Answer	Content Strand	GLE Stem Number	Depth of Knowledge Level
1	Multiple-choice (1 pt.)	C	Data, Statistics & Probability	5	1
2	Multiple-choice (1 pt.)	C	Numbers & Operations	4	2
3	Multiple-choice (1 pt.)	A	Numbers & Operations	4	2
4	Multiple-choice (1 pt.)	C	Functions & Algebra	1	2
5	Short-answer (1 pt.)		Functions & Algebra	4	2
6	Short-answer (2 pts.)		Geometry & Measurement	6	2
Session 2 – Calculator Active					
Position #	Item Type	Correct Answer	Content Strand	GLE Stem Number	Depth of Knowledge Level
7	Multiple-choice (1 pt.)	B	Functions & Algebra	1	2
8	Multiple-choice (1 pt.)	C	Geometry & Measurement	1	2
9	Multiple-choice (1 pt.)	D	Numbers & Operations	4	1
10	Multiple-choice (1 pt.)	A	Numbers & Operations	1	1
11	Short-answer (1 pt.)		Data, Statistics & Probability	2	2
12	Short-answer (2 pts.)		Numbers & Operations	3	2

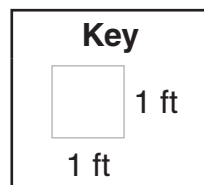
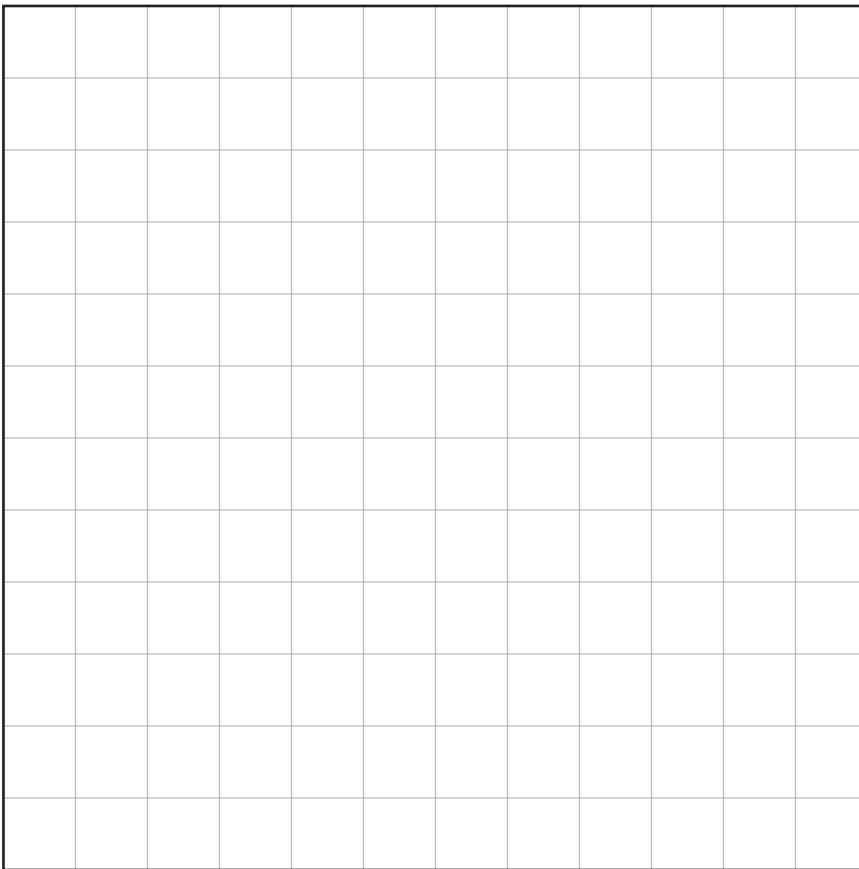
# NECAP Practice Test

## Grade 4

### Mathematics

#### Non-Calculator Short-Answer Item (2 points)

- 6 a. On the grid below, draw 3 different rectangles. The distance around each rectangle must be 26 feet. The area of each rectangle must be different. Label your rectangles F, G, and H.



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### Mathematics

#### Non-Calculator Short-Answer Item (2 points)

b. List the measurements for the length and width of each rectangle.

Rectangle F:      length \_\_\_\_\_      width \_\_\_\_\_

Rectangle G:      length \_\_\_\_\_      width \_\_\_\_\_

Rectangle H:      length \_\_\_\_\_      width \_\_\_\_\_

#### Scoring Guide

Score	Description
<b>2</b>	Student draws and/or lists three different sets of dimensions, yielding a perimeter of 26 feet.
<b>1</b>	Student draws or lists two different sets of dimensions, yielding a perimeter of 26 feet. OR Student shows minimal understanding with one correct drawing or one correct listing (no credit for drawings or listings that do not agree).
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	No response.

#### Sample Responses:

1 (foot) by 12 (feet)

2 (feet) by 11 (feet)

3 (feet) by 10 (feet)

4 (feet) by 9 (feet)

5 (feet) by 8 (feet)

6 (feet) by 7 (feet)

\* All students were provided the same amount of space in which to write their answers. For the purposes of this document, extraneous white space was removed from each student work sample to save space.

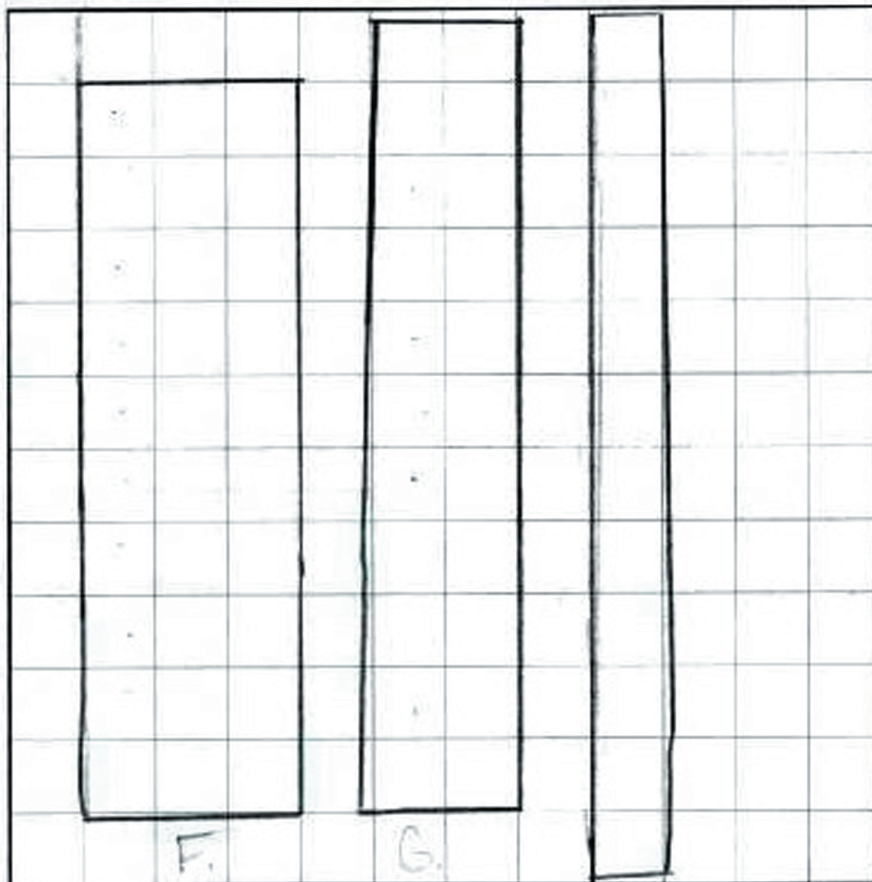


# NECAP Practice Test

## Grade 4

### Mathematics

#### Sample 2-Point Response A



$$\begin{array}{r} 10 \text{ Ft.} \\ 11 \text{ Ft.} \\ \hline 12 \text{ Ft.} \end{array}$$

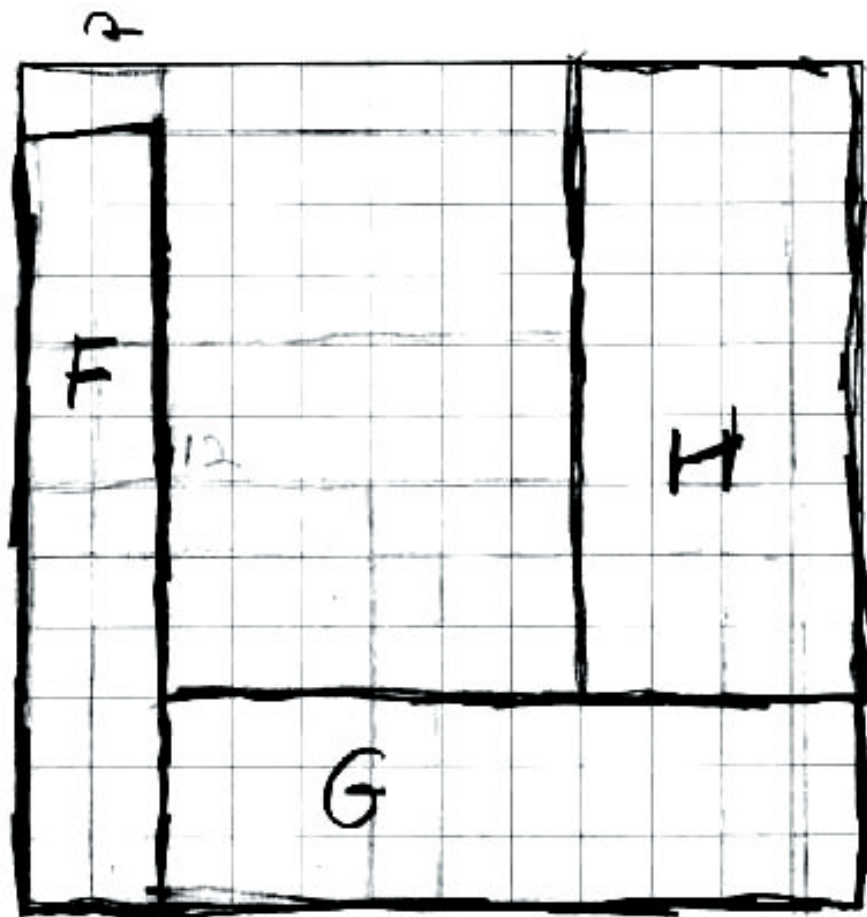
$$\begin{array}{r} 3 \text{ Ft.} \\ 2 \text{ Ft.} \\ \hline 1 \text{ Ft.} \end{array}$$

# NECAP Practice Test

## Grade 4

### Mathematics

#### Sample 2-Point Response B

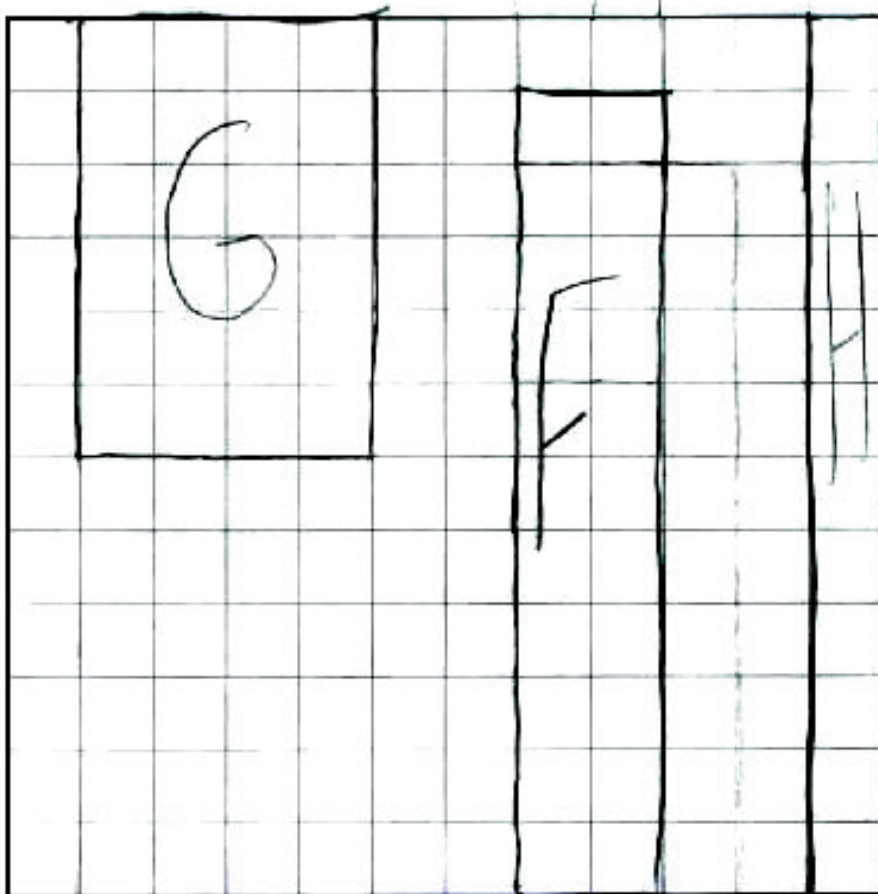


$$\begin{array}{r} 11 \\ 10 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 2 \\ 3 \\ \hline 4 \end{array}$$

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**Sample 1-Point Response A**

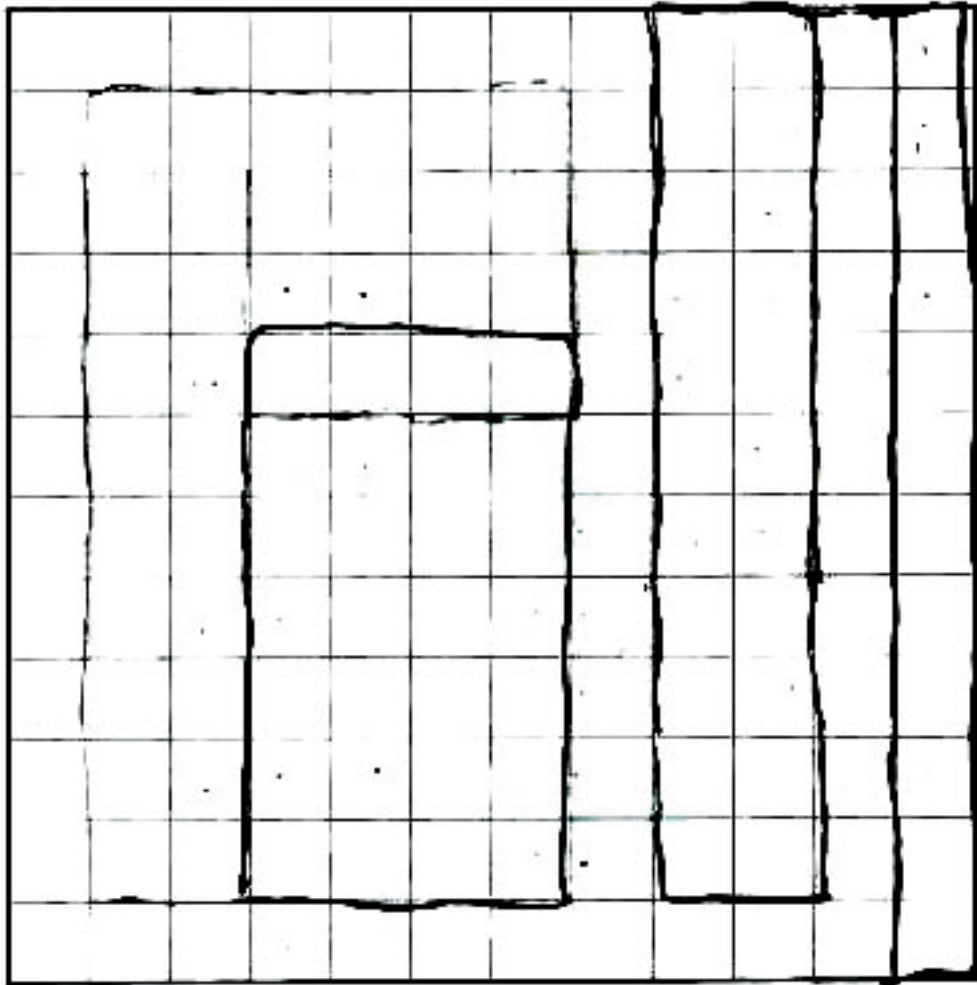


$$\begin{array}{r} 11 \\ 6 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 2 \\ 4 \\ \hline 1 \end{array}$$

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**Sample 1-Point Response B**



# NECAP Practice Test

## Grade 4

### Mathematics

#### Calculator-Active Short-Answer Item (2 points)

- 12 a. Use Xs to draw an array for the sum of  $4 + 4 + 4$ .
- b. Write a multiplication sentence that matches your array. Be sure to include the answer to your multiplication sentence.

#### Scoring Guide

Score	Description
2	Student draws correct array and writes correct multiplication sentence.
1	Student draws array correctly. OR Student writes correct multiplication sentence.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

#### Sample Responses:

XXXX      XXX  
XXXX or XXX  
XXXX      XXX  
            XXX

$$3 \times 4 = 12 \text{ or } 4 \times 3 = 12$$

Note: No credit for two rows of 6 Xs, or one row of 12 Xs, or similar.

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**Sample 2-Point Response**

x x x  
x x x  
x x x  
x x x

$$3 \times 4 = 12$$

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**Sample 1-Point Response**

$4 \times 3$   
four times three is twelve.